Amendments to the Claims

Please amend the listing of claims as follows:

1. (Original) A compound of structural formula (I):

$$(R_1)_n \xrightarrow{R_4 R_4} (CH_2)_o \xrightarrow{R_3} (CH_2)_p \xrightarrow{P_1 R_2} (CH_2)_p \xrightarrow{R_3} (CH_2)_p \xrightarrow{R_4 R_4} (CH_2)_o \xrightarrow{R_3} (CH_2)_p \xrightarrow{R_4 R_4} (CH_2)_o \xrightarrow{R_3} (CH_2)_p \xrightarrow{R_4 R_4} (CH_2)_o \xrightarrow{R_3} (CH_2)_o \xrightarrow{R_4 R_4} (CH_2)_o \xrightarrow{R_3} (CH_2)_o \xrightarrow{R_4 R_4} (CH_2)_o \xrightarrow{R_3} (CH_2)_o \xrightarrow{R_4 R_4} (CH_2)_o \xrightarrow{R_5 R_4} (CH_2)_o \xrightarrow{R_5 R_5} (CH_2)_o \xrightarrow{R_$$

or a pharmaceutically acceptable salt or a solvate thereof, wherein

R₁ is independently:

hydrogen,

hydroxy,

cyano,

nitro,

halo,

alkyl,

alkoxy,

haloalky,

(D)- $C(O)R_{15}$

(D)- $C(O)OR_{15}$

(D)- $C(O)SR_{15}$,

(D)-C(O)-heteroaryl,

(D)-C(O)-heterocyclyl,

(D)-C(O)N(R_{15})₂,

(D)- $N(R_{15})_2$,

(D)-NR₁₅COR₁₅,

(D)- $NR_{15}CON(R_{15})_2$,

- (D)- $NR_{15}C(O)OR_{15}$,
- (D)- $NR_{15}C(R_{15})=N(R_{15})$,
- (D)- $NR_{15}C(=NR_{15})N(R_{15})_2$,
- (D)- $NR_{15}SO_2R_{15}$,
- (D)- $NR_{15}SO_2N(R_{15})_2$,
- (D)-NR₁₅ (D)-heterocyclyl,
- (D)-NR₁₅ (D)-heteroaryl,
- (D)- OR_{15} ,
- OSO_2R_{15} ,
- (D)- $[O]_v(C_3-C_7 \text{ cycloalkyl})$,
- $(D)-[O]_v(D)$ aryl,
- (D)- $[O]_v$ (D)-heteroaryl,
- (D)- $[O]_v(D)$ -heterocyclyl (wherein heterocyclyl excludes a heterocyclyl containing a single nitrogen when v=1),
 - (D)- SR_{15} ,
 - (D)- SOR_{15} ,
 - (D)-SO₂R₁₅ or
 - (D)- $SO_2N(R_{15})_2$,

wherein alkyl, alkoxy, cycloalkyl, aryl, heterocyclyl and heteroaryl are unsubstituted or substituted;

R₂ is:

$$(R_7)_s \qquad (R_5)_s \qquad (R_5)_s \qquad (R_7)_s \qquad (R_5)_s \qquad (R_7)_s \qquad (R_7$$

R₃ is independently:

- (D)-aryl or
- (D)-heteroaryl,

wherein aryl and heteroaryl are unsubstituted or substituted;

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R<sub>4</sub> is H or a bond;
each R<sub>5</sub> is independently:
        hydrogen,
        halo,
        alkyl,
        haloalkyl,
        hydroxy,
        alkoxy,
        S-alkyl,
        SO<sub>2</sub>-alkyl,
        O-alkenyl
        S-alkenyl
        NR_{15}C(O)R_{15},
        NR_{15}SO_2R_{15},
        N(R_{15})_2,
        (D)-cycloalkyl or
        (D)-aryl (wherein aryl is phenyl or naphthyl),
        (D)-heteroaryl or
        (D)-heterocyclyl (wherein heterocyclyl excludes a heterocyclyl containing a
single nitrogen), and
        wherein aryl, heteroaryl, heterocyclyl, alkyl or cycloalkyl is unsubstituted or
substituted, and two adjacent R<sub>5</sub> may form a 4- to 7-membered ring;
each R<sub>6</sub> is independently:
        hydrogen,
        alkyl,
        C(O)-alkyl,
        (D)-aryl or
        cycloalkyl;
each R<sub>7</sub> is independently:
        hydrogen,
        alkyl,
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(D)-aryl,
         (D)-heteroaryl,
         (D)-N(R_9)_2,
         (D)-NR<sub>9</sub>C(O) alkyl,
         (D)-NR<sub>9</sub>SO<sub>2</sub> alkyl,
         (D)-SO_2N(R_9)_2,
         (D)-(O)_r alkyl,
         (D)-(O)_r(D)-NR_9COR_9,
         (D)-(O)_r(D)-NR_9SO_2R_9,
         (D)-(O)<sub>r</sub> heterocyclyl or
         (D)-(O)<sub>r</sub> (alkyl)-heterocyclyl;
each R<sub>8</sub> is independently:
         hydrogen,
         alky1,
         (D)-aryl,
         C(O) alkyl,
         C(O)-aryl,
         SO<sub>2</sub>-alkyl or
         SO<sub>2</sub>-aryl;
R_9 and R_{10} are each independently:
         hydrogen,
         alkyl or
         cycloalkyl, or
         R<sub>9</sub> and R<sub>10</sub> together with the nitrogen to which they are attached form a 5- to
8-membered ring optionally containing an additional heteroatom selected from
O, S and NR<sub>6</sub>,
         wherein alkyl and cycloalkyl are unsubstituted or substituted;
R<sub>13</sub> is:
         hydrogen
         or alkyl;
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each R<sub>15</sub> is independently;
        hydrogen,
        alkyl,
        haloalkyl,
        (D)-cycloalkyl,
        (D)-aryl (wherein aryl is phenyl or naphthyl),
        (D)-heteroaryl or
        (D)-heterocyclyl,
        wherein heterocyclyl excludes a heterocyclyl containing a single nitrogen, and
        wherein aryl, heteroaryl, heterocyclyl, alkyl and cycloalkyl is unsubstituted or
substituted;
Cy is:
        aryl,
        5- or 6-membered heteroaryl,
        5- or 6-membered heterocyclyl or
        5- or 7-membered carbocyclyl;
A is a bond, O, S(O)<sub>u</sub>, NR<sub>8</sub> or CH<sub>2</sub>;
D is a bond or alkylene;
X is N or CH;
Y is O or NR<sub>9</sub>;
n is 1 - 4;
o is 0 - 2;
p is 0 - 2;
r is 0 or 1;
s is 0 - 5;
u is 0 - 2;
v is 0 or 1.
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2. (Original) The compound of claim 1, wherein

each R₁ is independently:

hydrogen,

hydroxy,

cyano,

nitro,

halo,

alkyl,

alkoxy,

haloalkyl,

- (D)- $N(R_{15})_2$,
- (D)- $NR_{15}COR_{15}$,
- (D)- $NR_{15}CON(R_{15})_{2}$
- (D)- $NR_{15}C(O)OR_{15}$,
- (D)- $NR_{15}C(R_{15})=N(R_{15})$,
- (D)- $NR_{15}C(=NR_{15})N(R_{15})_2$,
- (D)- $NR_{15}SO_2R_{15}$,
- (D)- $NR_{15}SO_2N(R_{15})_2$ or
- (D)-heterocyclyl;

R₂ is:

$$(R_7)_5 \qquad (R_5)_6 \qquad (R_7)_6 \qquad (R_5)_7 \qquad (R_5$$

R₃ is (CH₂)-phenyl or (CH₂)-naphthyl, unsubstituted or substituted with one to three substituents selected from the group consisting of cyano, nitro, perfluoroalkoxy, halo, alkyl, (D)-cycloalkyl, alkoxy and haloalkyl;

```
each R<sub>5</sub> is independently;
        hydrogen,
        halo,
        alkyl,
        haloalkyl,
        hydroxy,
        alkoxy,
        S-alkyl,
        SO<sub>2</sub>-alkyl,
        O-alkenyl or
        S-alkenyl;
each R<sub>6</sub> is independently:
        hydrogen or
        alkyl;
each R<sub>7</sub> is independently:
        alkyl,
        hydrogen,
        (D)-aryl,
        (D)-heteroaryl,
        (D)-N(R_9)_2,
        (D)-NR<sub>9</sub>C(O)alkyl or
        (D)-NR<sub>9</sub>SO<sub>2</sub>alkyl;
R_9 and R_{10} are each independently:
        hydrogen,
         alkyl or
        cycloalkyl, or
        R<sub>9</sub> and R<sub>10</sub> together with the nitrogen to which they are attached form a 5- to
        7-membered ring optionally containing an additional heteroatom selected from
         O, S and NR<sub>6</sub>;
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each R<sub>11</sub> is independently:
        alkyl,
         OR<sub>12</sub>,
        (D)-aryl,
        (D)-cycloalkyl,
        (D)-heteroaryl or
        halo;
each R_{12} is independently:
        hydrogen,
        (D)-aryl or
        alkyl;
each R<sub>13</sub> is independently:
        hydrogen or
        C_1 - C_4 alkyl;
R<sub>14</sub> is independently selected from the group consisting of;
        hydrogen,
        halo,
         alkyl,
        (D)-cycloalkyl,
        alkoxy or
        phenyl;
R<sub>15</sub> is independently:
        hydrogen,
        halo,
         alkyl,
         (D)-cycloalkyl,
         alkoxy or
        phenyl;
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Cy is selected from aryl, 5- or 6-membered heteroaryl, 5- or 6-membered heterocyclyl or 5- to 7-membered carbocyclyl;

A is a bond or CH₂; D is a bond or CH₂; Y is NR₉ or O; n is 0, 1 or 2; o is 0 or 1; p is 0 or 1; s is 0 - 3 v is 0 or 1.

3. (Currently Amended) The compound of claim 1-or 2, wherein

each R₁ is independently:

cyano,

nitro,

halo,

alkyl,

- (D)-heterocyclyl,
- (D)- $N(R_{15})_2$,
- (D)-NR₁₅COR₁₅,
- (D)- $NR_{15}CON(R_{15})_2$,
- (D)- $NR_{15}C(O)OR_{15}$ or
- (D)- $NR_{15}SO_2R_{15}$,

R₂ is:

$$(R_7)_6 \qquad (R_5)_6 \qquad (R_5)_8 \qquad (R_5)_8 \qquad (R_5)_9 \qquad (R_5$$

R₃ is (CH₂)-phenyl or (CH₂)-naphthyl, substituted with one or two substituents selected from the group consisting of perfluoroalkoxy, halo, alkyl, alkoxy and haloalkyl;

```
each R<sub>5</sub> is independently:
         hydrogen,
         halo,
         alkyl,
         hydroxy,
         S-alkyl,
         SO<sub>2</sub>-alkyl or
         alkoxy;
R<sub>6</sub> is hydrogen;
R<sub>7</sub> is hydrogen;
R_9 and R_{10} are each independently:
         hydrogen or
         alkyl, or
         R<sub>9</sub> and R<sub>10</sub> together with the nitrogen to which they are attached form a 5- to
         6-membered ring optionally containing an additional oxygen atom;
R<sub>12</sub> is hydrogen or (D)-aryl
each R<sub>13</sub> is independently:
         hydrogen,
         methyl or
         ethyl;
R<sub>14</sub> is independently:
         hydrogen,
         halo,
         alkyl,
         alkoxy or
         phenyl;
```

R₁₅ is independently:

hydrogen,

halo,

alkyl,

alkoxy or

phenyl;

Cy is:

aryl or

heteroaryl;

D is a bond;

n is 1 or 2;

o is 0;

p is 0;

s is 0 - 2.

4. (Currently Amended) The compound of claim 1, 2 or 3 wherein

R₁ is (D)-heterocyclyl;

R₂ is:

$$(R_7)_s$$
 $(R_6)_s$ $(R_5)_s$

R₃ is (CH₂)-phenyl or (CH₂)-naphthyl, unsubstituted or substituted with one or two halogen atoms;

each R₅ is independently:

hydrogen,

isopropyl,

hydroxy,

alkoxy,

S-alkyl or
SO₂-alkyl;

R₆ is hydrogen;

R₇ is hydrogen;

R₉ and R₁₀ are each independently:
hydrogen or
alkyl, or
R₉ and R₁₀ together with the nitrogen to which they are attached form a 5- to
6-membered ring optionally containing an additional oxygen atom;

Cy is benzene;

s is 0 or 1.

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- 5. (Currently Amended) The compound of any of claims 1 to 4 for use as a A medicament comprising the compound of claim 1.
- 6. (Currently Amended) Use of the compound of any of claims 1 to 4 for the preparation of a medicament for the treatment or prevention of A method of treating or preventing disorders, diseases or conditions responsive to the inactivation or activation of the melanocortin-4 receptor in a mammal, the method comprising administering an effective amount of the compound of claim 1.
- 7. (Currently Amended) Use according to claim 6 for the preparation of a medicament for the treatment or prevention of cancer cachexia. A method of treating or preventing cancer cachexia, the method comprising administering an effective amount of the compound of claim 6.
- 8. (Currently Amended) Use according to claim 6 for the preparation of a medicament for the treatment or prevention of muscle wasting. A method of treating or preventing muscle wasting, the method comprising administering an effective amount of the compound of claim 6.

- 9. (Currently Amended) Use according to claim 6 for the preparation of a medicament for the treatment or prevention of anorexia. A method of treating or preventing anorexia, the method comprising administering an effective amount of the compound of claim 6.
- 10. (Currently Amended) Use according to claim 6 for the preparation of a medicament for the treatment or prevention of anxiety and/or depression. A method of treating or preventing anxiety and/or depression, the method comprising administering an effective amount of the compound of claim 6.
- 11. (Currently Amended) Use according to claim 6 for the preparation of a medicament for the treatment or prevention of obesity. A method of treating or preventing obesity, the method comprising administering an effective amount of the compound of claim 6.
- 12. (Currently Amended) Use according to claim 6 for the preparation of a medicament for the treatment or prevention of diabetes mellitus. A method of treating or preventing diabetes mellitus, the method comprising administering an effective amount of the compound of claim 6.
- 13. (Currently Amended) Use according to claim 6 for the preparation of a medicament for the treatment or prevention of male or female sexual dysfunction. A method of treating or preventing male or female sexual dysfunction, the method comprising administering an effective amount of the compound of claim 6.
- 14. (Currently Amended) Use according to claim 6 for the preparation of a medicament for the treatment or prevention of erectile dysfunction. A method of treating or preventing erectile dysfunction, the method comprising administering an effective amount of the compound of claim 6.
- 15. (Currently Amended) A pharmaceutical composition which comprises a compound of any of claims 1 to 4claim 1 and a pharmaceutically acceptable carrier.